

-2-

AMENDMENTS TO THE CLAIMS

1. (currently amended) An abrasion and wear resistant fabric assembly comprising:

a flexible substrate having a top surface; and

a plurality of non-overlapping plates arranged in a repeating pattern affixed to the top surface of the substrate, wherein the plates have a substantially uniform thickness of approximately 5 to 20 mils, and wherein the plates define a plurality of continuous gaps having approximately uniform width between adjacent plates.

2. (previously presented) The abrasion and wear resistant fabric of claim 1, wherein the substantially uniform thickness is approximately 5 to 10 mils.

3. (currently amended) The abrasion and wear resistant fabric assembly of claim 1, ~~wherein the width of plates define a plurality of continuous gaps between adjacent plates, each gap is having a width~~ approximately 5 to 20 mils, and wherein the plates comprise polymeric resin, and wherein the substrate comprises a woven fabric.

4. (previously presented) The fabric assembly of claim 3, wherein the plates each have a maximum dimension in the range of 20 to 200 mils.

5. (previously presented) The fabric assembly of claim 3, wherein the plates are identical.

6. (previously presented) The fabric assembly of claim 3, wherein the plates each have a diameter in the range of 20 to 100 mils.

-3-

7. (currently amended) The fabric assembly of claim 5, wherein the plates are each shaped as a polygon.

8. (previously presented) The fabric assembly of claim 7, wherein the polygon is an equilateral hexagon.

9. (previously presented) The fabric assembly of claim 8, wherein the equilateral hexagon has a diameter in the range of 20 to 100 mils.

10. (previously presented) The fabric assembly of claim 9, wherein the diameter is in the range of 20 to 80 mils.

11. (previously presented) The fabric assembly of claim 5, wherein the plates have a curved shape.

12. (canceled) ~~The fabric assembly of claim 11, wherein the curved shape is approximately circular.~~

13. (previously presented) The fabric assembly of claim 3, wherein the plates are non-identical relative to each other.

14. (canceled) ~~The fabric assembly of claim 3, wherein the plates comprise a polymeric resin.~~

15. (currently amended) The fabric assembly of claim 3~~14~~, wherein the polymeric resin is epoxy.

16. (currently amended) previously presented) The fabric assembly of claim 13, wherein the plates comprise a composite material.

-4-

17. (previously presented) The fabric assembly of claim 16, wherein the composite material comprises a ceramic material.

18. (previously presented) The fabric assembly of claim 16, wherein the composite material comprises a plastic.

19. (canceled) ~~The fabric assembly of claim 3, wherein the flexible substrate comprises a woven or knit fabric.~~

20. (currently amended) The fabric assembly of claim ~~3~~19, wherein the flexible substrate comprises at least one of polyester, cotton, Kevlar®, and nylon.

21. (canceled) ~~The fabric assembly of claim 19, wherein the flexible substrate comprises cotton.~~

22. (canceled) ~~The fabric assembly of claim 19, wherein the flexible substrate comprises Kevlar®.~~

23. (canceled) ~~The fabric assembly of claim 19, wherein the flexible substrate comprises nylon.~~

24. (currently amended) The fabric assembly of claim ~~13~~13, wherein the flexible substrate comprises a non-woven material.

25. (previously presented) The fabric assembly of claim 24, wherein the non-woven material comprises leather.

26. (currently amended) The fabric assembly of claim 3, wherein the substrate further comprises a compressible material.

-5-

27. (previously presented) The fabric assembly of claim 26, wherein the substrate further comprises a fabric laminated to the compressible material.

28. (previously presented) The fabric assembly of claim 3, wherein the flexible substrate comprises neoprene.

29. (currently amended) The ~~an~~ abrasion and wear resistant fabric assembly of claim 3, ~~comprising:~~

~~a flexible substrate having a top surface, and
a plurality of non-overlapping plates affixed to the top
surface of the substrate, the plurality of plates
arrayed such that a plurality of gaps are defined
between adjacent plates, wherein the plates have a
substantially uniform thickness, and wherein the
plurality of plates enhances the abrasion resistance of
the flexible substrate by a selected factor.~~

30. (previously presented) The abrasion and wear resistant fabric assembly of claim 29, wherein the plurality of plates comprises a material that selectively increases heat resistance of the flexible substrate.

31. (previously presented) The fabric assembly of claim 29, wherein the plate thickness is approximately 5 to 40 mils.

32. (previously presented) The fabric assembly of claim 29, wherein the plates comprise polymeric resin with tensile strength greater than 100 kgf/cm².

33. (previously presented) The fabric assembly of claim 29, wherein the factor ranges from 2 to 200.

-6-

34. (previously presented) The fabric assembly of claim 33, wherein the factor of abrasion resistance enhancement ranges from 5 to 100.

35. (previously presented) The fabric assembly of claim 34, wherein the factor of abrasion resistance enhancement ranges from 10 to 50.

36. (previously presented) The fabric assembly of claim 35, wherein the factor of abrasion resistance enhancement ranges from 12 to 30.

37. (canceled) ~~A method of making an abrasion and wear resistant fabric assembly comprising:~~

~~selecting a flexible substrate having a top surface;~~
~~selecting a heat resistant plate material capable of being solid and affixed to the top surface of the flexible substrate; and~~
~~affixing the plate material on the top surface of the flexible substrate, the plate material forming a plurality of non-overlapping plates having a substantially uniform thickness of approximately 5 to 40 mils.~~

38. (canceled) ~~A method of making an abrasion and wear resistant fabric assembly comprising:~~

~~selecting a flexible substrate having a top surface;~~
~~selecting a plate material capable of being solid and affixed to the top surface of the flexible substrate; and~~
~~affixing the plate material on the top surface of the flexible substrate, the plate material forming a plurality of non-overlapping plates having an~~

-7-

~~approximate uniform thickness in the range of 5 to 40
mils, the plates enhancing the abrasion resistance of
the flexible substrate by a selected factor.~~

39. (currently amended) ~~The~~^{An} fabric assembly of claim 1,
comprising:

~~a flexible substrate having a top surface; and
a plurality of non-overlapping plates affixed to the top
surface of the substrate, wherein the plates comprise a low
thermal conductivity material.~~

40. (previously presented) The fabric assembly of claim 39,
wherein the low thermal conductivity material comprises porous
ceramic.

41. (previously presented) The fabric assembly of claim 40,
wherein the low thermal conductivity material further comprises
silica glass fiber.

42. (previously presented) The fabric assembly of claim 41,
wherein the low thermal conductivity material comprises an air
volume of up to approximately 94%.

43. (currently amended) The fabric assembly of claim ~~34~~², wherein
the substrate comprises a heat resistant fabric.

44. (new) The fabric assembly of claim 7, wherein the polygon is
an octagon, a square, a diamond, or a triangle.

45. (new) The fabric assembly of claim 1, wherein the flexible
substrate comprises a knit fabric.

46. (new) The fabric assembly of claim 3, wherein the polymeric

-8-

resin further comprises an additive selected to increase the abrasion resistance of the fabric assembly, wherein the additive comprises at least one of alumina particles, titanium particles, and ceramic beads.

BEST AVAILABLE COPY